ORIGINAL

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MANAGERS DESIGNERS/CONSULTANTS

Sampling Event Trip Report

Robert Wooler Company Site
Dresher, Montgomery County, PA

CERCLIS ID. No. PAD987279387

28 May 1997

Prepared for
U. S. Environmental Protection Agency Region III
CEPP and Site Assessment Section
Philadelphia, PA

SATA
Site Assessment Technical Assistance

TDD No. 9701-151
Contract No. 68-S5-3002

TRIP REPORT

ORIGINAL (Red)

Robert Wooler Company Site
Dresher, Montgomery County, Pennsylvania

TDD No. 9701-151
Contract No. 68-S5-3002

1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the U.S. Environmental Protection Agency (EPA) Region III Chemical Emergency Preparedness Program (CEPP) and Site Assessment Section, under the guidance of Site Assessment Manager Maggie Jennis has directed the Roy F. Weston, Inc. (WESTON®), Site Assessment Technical Assistance (SATA) team to conduct a site inspection at the Robert Wooler Company Site, Dresher, Montgomery County, Pennsylvania (CERCLIS No. PAD987279387). SATA conducted a sampling event on Monday, 24 March 1997, to determine types and concentrations of hazardous substances onsite and to investigate migration of these substances from the site.

2.0 BACKGROUND

2.1 Site Description

The Robert Wooler Company Site is located on 1755 Susquehanna Road, in Dresher, Montgomery County, Pennsylvania, in a light industrial/residential zone. The Site Location Map (Figure 2.1) illustrates the site's location in the Dresher area. The climate of Montgomery County is temperate with mean temperatures ranging from 31.2 °F in January to 76.5 °F in July. The average annual precipitation is 41.42 inches and the mean lake evaporation is 34.5 inches with a 2-year, 24-hour rainfall event of 3.0 inches. This gives the Dresher area a net precipitation of 6.92 inches.[1]

2.2 Regulatory History

The Robert Wooler Company site is an active commercial metal heat treatment facility which has been in operation since 1939. During a 1989 inspection in relation to the adjacent Selas Corporation, the well at the Wooler facility was sampled. The sampling results showed elevated levels of trichloroethane, trichloroethene, tetrachloroethene and dichloroethane in the well water (the highest levels for that sampling event). The well is used to supply non-contact cooling water for the facility's heat treating equipment. A Preliminary Assessment (PA) was conducted at the Robert Wooler facility and the final report was completed in 1993.[2]

The PA stated that the facility used trichloroethene (TCE) as a cleaning agent from 1963 to 1985. It further suggests that the source of the hazardous substances may be a septic field once utilized by the facility. The septic field was active from 1939 until the early 1980's when the facility was connected to the municipal system.

According to facility officials the septic system was back filled at that time. There have been no spill reports submitted from the Robert Wooler Company.

In addition, the PA states that the Wooler facility was discharging an algaecide (CGO-10-with Visigard), used to clean the cooling towers, to a storm sewer until January 1992. The Pennsylvania Department of Environmental Protection (PADEP) investigated a complaint of soil staining along the unnamed tributary and traced the problem back to the storm sewers being utilized by the facility.

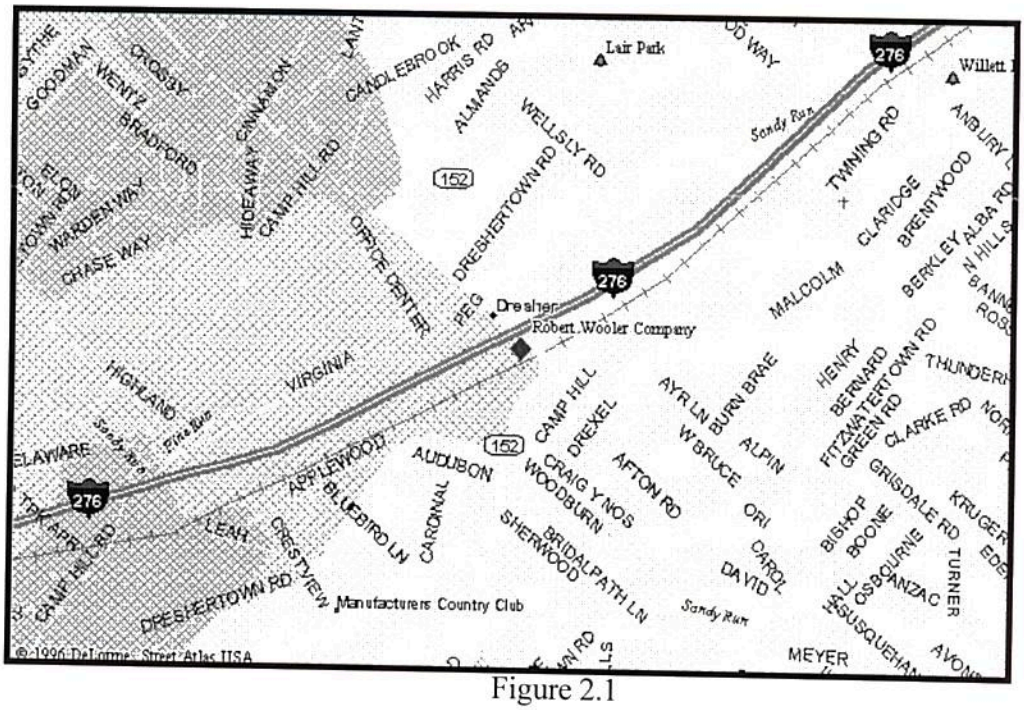


Figure 2.1
Site Location Map

The unnamed tributary, which is believed/assumed to be perennial, empties into Rapp Run, which feeds into the Sandy Run Creek. The Sandy Run Creek feeds into the Wissahickon Creek. In February 1992, a Notice of Violation was issued by PADEP to the facility, ordering that the discharge of the algaecide to the storm sewer be stopped immediately. Robert Wooler complied with the order and plugged the storm sewer connection. Currently, the algaecide is discharged to the municipal sewer under permit with the Upper Dublin Sewer Department and the Abington Wastewater Treatment Plant.[2]

3.0 SITE ACTIVITIES

3.1 Actions Taken

On 31 March 1997, SATA conducted a sampling event to establish the presence of and potential migration of hazardous substances from the Robert Wooler Company facility along the surface and groundwater pathways. SATA also collected surface

sediment samples from the unnamed tributary northwest of the facility to establish the presence of residual contamination from a historical release noted in the PA report. The sampling event was concluded by the end of the day.

3.2 Site Conditions

The Robert Wooler Company facility is located in a light industrial/residential area of Dresher, Montgomery County. Approximately 300 feet northwest of the facility is an unnamed tributary to Rapp Run, which flows from the northeast along the edge of Route 276. The homes sampled for this event were generally to the west of the site except one home which was to the east. The Manufacturers Country Club, the only public drinking water source sampled for this event, is located south, southwest of the site.

3.3 Meteorological Conditions

The ambient weather conditions for the Greater Dresher area for the day of the sampling event are outlined as below:

Table 1 Meteorological Conditions

Average Temperature	32°F
Primary Wind Direction	NNW
Wind Speed	Approximately 10-15 mph
Visual Appearance	Overcast and snowing

3.4 Sampling Activities

Samples were collected to identify the presence and potential migration of hazardous substances and their impact on various pathways. The sampling event followed the procedures outlined in the site sampling plan with the following exceptions:

- The (b) (6) was not sampled as it was discovered to be on municipal supply. The Manufacturers Country Club was added to replace this sample as it was found that the well on the property was used for drinking water even though the club has a municipal connection.
- Sample RWSW03 was collected at the mouth of the unnamed tributary as it emptied into Rapp Run. Rapp Run flows for approximately 1.3 miles to empty into Sandy Run near Fort Washington.

All the samples collected were analyzed for volatile organics and the sediment samples were also analyzed for inorganics. Attachment 1 shows the location of the drinking water wells sampled and Attachment 2 shows the surface water and sediment sample locations. The samples are outlined in Table 2 along with the test method requested for each.

Table 2

Sample Identifier	Matrix	Test Method	Location
SS-01	sediment	CLP SOW ILM03.0(I) CLP SOW OLM03.1(O)	shoreline of unnamed tributary at probable point of entry
SS-02	sediment	CLP SOW ILM03.0(I) CLP SOW OLM03.1(O)	shoreline of unnamed tributary upstream from the PPE
GW-01	groundwater	CLP SOW OLM03.1(O)	Wooler facility well
GW-02	drinking water	CLP SOW OLM03.1(O)	(b) (6)
GW-03	drinking water	CLP SOW OLM03.1(O)	
GW-04	drinking water	CLP SOW OLM03.1(O)	Manufacturers C.C.
GW-05	drinking water	CLP SOW OLM03.1(O)	(b) (6)
SW-01	surface water	CLP SOW OLM03.1(O)	unnamed tributary at PPE
SW-02	surface water	CLP SOW OLM03.1(O)	unnamed tributary 200 feet downstream of PPE
SW-03	surface water	CLP SOW OLM03.1(O)	Mouth of unnamed tributary to Rapp Run
GW-06	ground water	CLP SOW OLM03.1(O)	duplicate of (b) (6)
BL-01	Water	CLP SOW OLM03.1(O)	trip blank

3.5 Sampling Results

The samples collected for this event were sent to the U.S. EPA Region III Bestgate Laboratory for analysis. According to the report issued for this analysis, the surface soil samples show relatively high concentrations of naturally occurring inorganic materials. The surface water sample collected at the storm sewer outfall indicates the presence of acetone; however, this hazardous substance was not detected further downstream. The surface water sample collected 200 feet downstream does indicate elevated levels of trichloroethene; however, this is the only surface water sample showing this hazardous substance present above quantitation limits. This result may be an anomaly or suggest a groundwater to surface water release from the site. Few of the groundwater wells sampled suggested the presence of any organic compounds, with the exception of the production well on the Robert Wooler Company property. This well shows elevated levels of 1,1-dichloroethane, tetrachloroethene, 1,1,1-trichloroethane and trichloroethene. It should be stressed that none of the information included in the analytical report has gone through a quality control and assurance review as of this report. See Attachment 3 for a copy of the raw analytical results.

4.0 FUTURE ACTIONS

The unvalidated analytical data became available on 8 May 1997, and is included in this report as Attachment 1. The final qualified data from Central Regional Laboratory will become available in approximately 4 - 5 months. SATA will prepare a PREscore, version 4.1, for the site and a site inspection narrative report. Further actions will be contingent on the associated results and the decisions of the SAM.

5.0 REFERENCES

1. Department of Commerce. 1996. *Technical Paper No. 40, Rainfall Frequency Atlas of the United States*. Hydrologic Services Division, Washington D.C.

2. Ecology and Environment, Inc. 1993, *Preliminary Assessment for the Robert Wooler Company Site, Dresher, Montgomery County, Pennsylvania*, EPA Work Assignment No. 85-12-3JZZ, Philadelphia, Pennsylvania. February.

Attachment: Drinking Well Sample Location Map
Surface water and Sediment Sample Location Map
Analytical Report

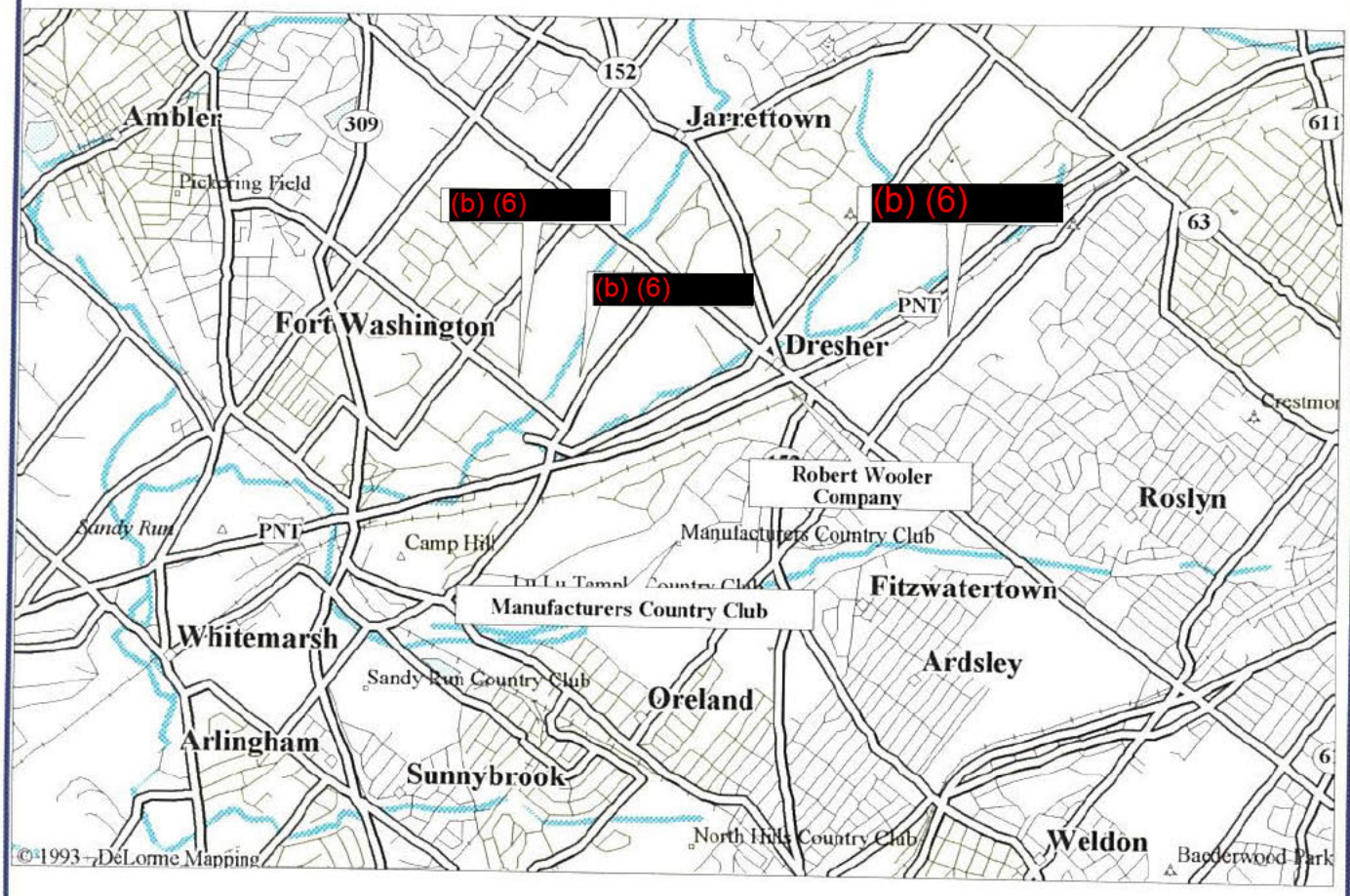
ATTACHMENT 1

WESTON MANAGERS DESIGNERS/CONSULTANTS FEDERAL PROGRAMS DIVISION

Robert Wooler Company Site
Dresher, Montgomery County, PA

TDD#: 9701-151
PCS#: 3152

Drinking Well Sample Locations



NOT TO SCALE

ATTACHMENT 2

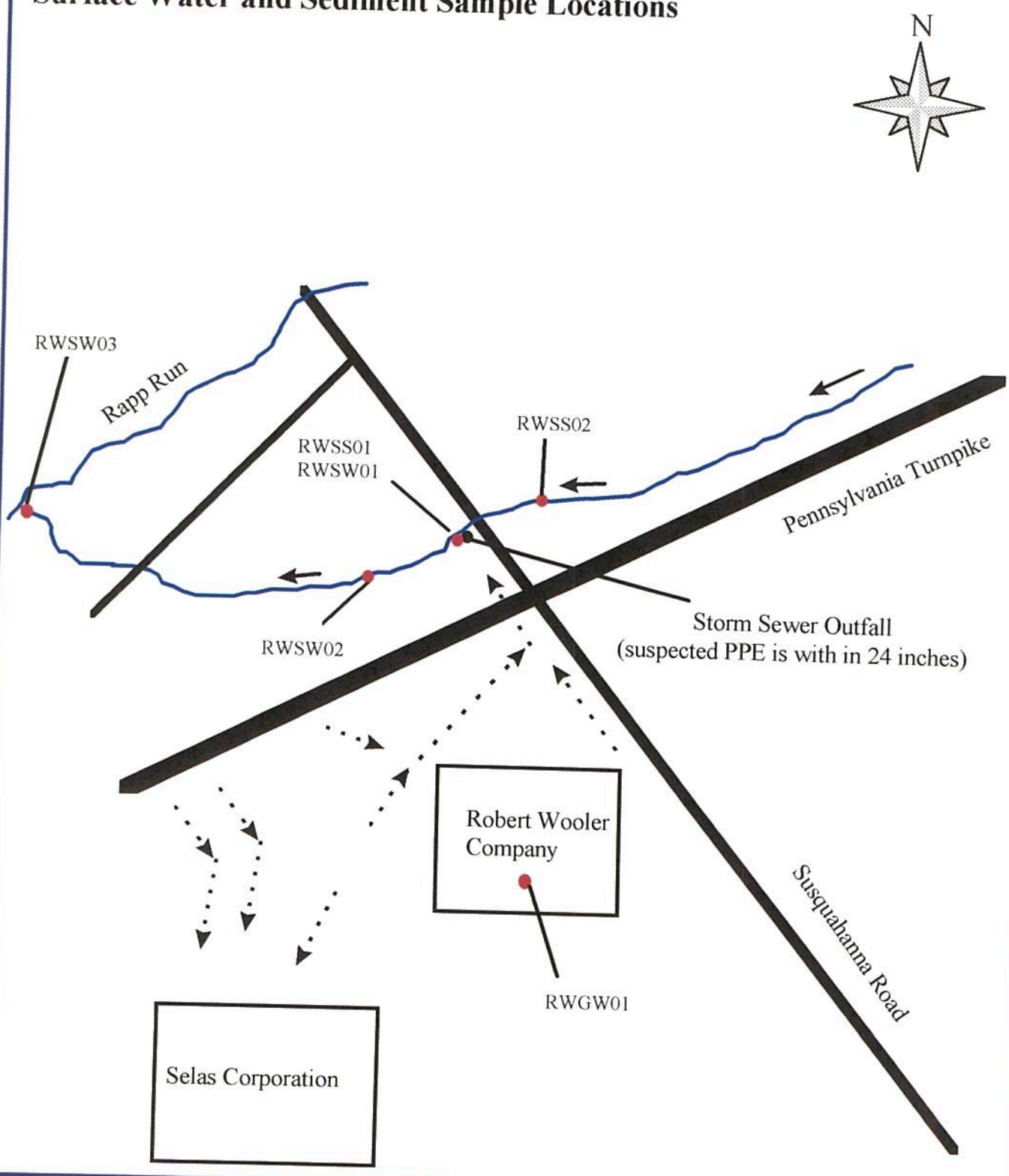
ORIGINAL (Red)

WESTON® MANAGERS DESIGNERS/CONSULTANTS FEDERAL PROGRAMS DIVISION

Robert Wooler Company Site
Dresher, Montgomery County, PA

TDD#: 9701-151
PCS#: 3152

Surface Water and Sediment Sample Locations



· · · ➤ Direction of Surface Topography

NOT TO SCALE

ATTACHMENT 3

ORIGINAL (Red)

U.S. EPA Region III
Office of Analytical Services and Quality Assurance
Annapolis, Maryland

ANALYTICAL REPORT

ROBERT WOOLER
SUPERFUND REMOVAL/REMEDIAL

Account #: 97 T 03N FAX A343SI00
Lab Request # REQ97099

May 8, 1997

DRAFT

U.S. EPA Region III
Office of Analytical Services
and Quality Assurance
Annapolis, Maryland

Section: GENERAL
Page: C1

Facility: ROBERT WOOLER
Program: SUPERFUND REMOVAL/REMEDIAL

Account #: 97 T 03N FAX A343SI00
Lab Request #: REQ97099

TESTS REQUESTED

Inorganic Test Assigned	Sample No. 970401-														
	01	02	03	04	05	06	07	08	09	10	11	12			
Metals Analysis				X	X										
Percent Dry Weight				X	X										
Total Cyanide				X	X										

Organic Test Assigned	Sample No. 970401-														
	01	02	03	04	05	06	07	08	09	10	11	12			
Volatile Organics by Purge and Trap GC/MS	X	X	X	X	X	X	X	X	X	X	X	X			

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(X = test was requested)

ORIGINAL (Red)

U.S. EPA Region III
Office of Analytical Services
and Quality Assurance
Annapolis, Maryland

Facility: ROBERT WOOLER
Program: SUPERFUND REMOVAL/REMEDIAL

Account #: 97 T 03N FAX A343SI00
Lab Request #: REQ97099

SAMPLE DESCRIPTIONS

Sample #	Station Description	Matrix	Type	End Collection Date	End Collection Time	Latitude	Longitud
97040101	STA RWGW01, Wooler Well	Water - Type Unspecified	GRAB	03/31/97	09:18		
97040102	STA RWGW04, Manufacturer's Well	Water - Type Unspecified	GRAB	03/31/97	10:15		
97040103	STA RWGW02, (b)(6) Well	Water - Type Unspecified	GRAB	03/31/97	10:40		
97040104	STA RWSS02, Sediment Upstream	Soil	GRAB	03/31/97	11:05		
97040105	STA RWSS01, Sediment Outfall	Soil	GRAB	03/31/97	11:05		
97040106	STA RWSW01, Surface Water Outfall	Water - Type Unspecified	GRAB	03/31/97	11:10		
97040107	STA RWGW05, (b) (6) Well	Water - Type Unspecified	GRAB	03/31/97	11:45		
97040108	STA RWSW03, Mouth of Tributary	Water - Type Unspecified	GRAB	03/31/97	12:20		
97040109	STA RWSW02, 200 ft. Downstream	Water - Type Unspecified	GRAB	03/31/97	12:45		
97040110	STA RWGW03, (b) (6) Well	Water - Type Unspecified	GRAB	03/31/97	13:15		
97040111	STA RWGW06, [redacted] Well	Water - Type Unspecified	GRAB	03/31/97	14:00		
97040112	STA RWBL01, Trip Blank	Aqueous Matrix - Type Unspecified	GRAB	03/31/97	08:00		

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QUALIFIER CODE AND GLOSSARY DEFINITIONS

Qualifier Codes:

<	=	Sample value is below the quantitation limit. Quantitation limit reported.
</=	=	Reported value is estimated. Sample was analyzed in duplicate, one value is equal to or above the quantitation limit and one below. Average of quantitation limit and detected value reported.
>	=	Sample value is above the quantitation range.
A	=	Quality control value is outside acceptance limits.
B	=	Not detected substantially above (10 times) the level reported in the laboratory or field blanks (includes field, trip, rinsate, and equipment blanks).
C	=	See report narrative for analyst's observations concerning this result.
D	=	Sample and duplicate values are below the quantitation limit. Quantitation limit reported.
E	=	Value exceeds a theoretically equivalent or greater value (e.g. dissolved > total, orthophosphate > total phosphorus). However, the difference is within the expected precision of the analytical techniques and is not statistically significant.
I	=	An interference exists which masks true response. See report narrative for explanation.
J	=	Analyte present. Reported value is estimated; concentration is outside the range for accurate quantitation.
K	=	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	=	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
N	=	Presumptive evidence indicates the presence of the compound. Special methods and/or method modifications may be needed to confirm its presence or absence in future sampling efforts.
NA	=	Analysis was not requested.
Q	=	No analytical results. See report for explanation.
R	=	Unreliable results. Analyte may or may not be present in the sample. Supporting data is necessary to confirm results.
T	=	Tentatively Identified Compound. Identified as a result of a library search using the EPA/NIH Mass Spectral Library. Authentic standards were not available to properly identify and quantitate the compound The reported concentration is an estimate.
TD	=	Spike recovery too dilute for accurate quantitation.
UJ	=	Not detected. Quantitation limit is estimated.
UL	=	Not detected. Quantitation limit is probably higher.

Glossary:

( )	=	Numbers in parentheses are analytical spike recoveries (e.g. post-digestion spikes).
[ ]	=	Numbers in brackets are matrix spike recoveries (e.g. pre-digestion spikes).
MS/MSD	=	Matrix spike/matrix spike duplicate; a known increment of target analyte made to a sample before preparation or analyses.
MSA	=	Method of Standard Additions
RPD	=	Relative Percent Difference; the results for duplicate analyses are presented as the mean and the relative percent difference.

$$RPD = \frac{|Replicate1 - Replicate2|}{(Replicate1 + Replicate2)/2} \times 100$$

U.S. EPA Region III
Office of Analytical Services
and Quality Assurance
Annapolis, Maryland

INORGANIC ANALYTICAL REPORT

ROBERT WOOLER

SUPERFUND REMOVAL/REMEDIAL

Account #: 97 T 03N FAX A343SI00

Lab Request # REQ97099

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U.S. EPA Region III
Office of Analytical Services
and Quality Assurance
Annapolis, Maryland

Section: INORGANIC
Page: A1

Facility: ROBERT WOOLER
Program: SUPERFUND REMOVAL/REMEDIAL

Account #: 97 T 03N FAX A343SI00
Lab Request #: REQ97099

INORGANIC ANALYTICAL SAMPLE RESULTS

Sample Number:	97040104			97040105		
ANALYTES	SAMPLE			SAMPLE		
Metals Analysis	Units: ug/g	% Rec	RPD	ug/g	% Rec	RPD
Aluminum	9960		6	11600	(108)	
Antimony	<0.5	(97)	D	<0.5	(97)	
Arsenic	3.0	(86)	35	3.9	(MSA)	
Barium	227		4	213	[85]	
Beryllium	1.1		6	1.1	[99]	
Cadmium	<=0.5			0.8	[81]	
Calcium	22500		2	18700	(107)	
Chromium	25.4		2	25.0	[90]	
Cobalt	10.6		3	10.6	[88]	
Copper	36.7		2	38.1	[82]	
Iron	17800		5	18100	(102)	
Lead	162		5	147	[106]	
Magnesium	8390		6	8220	(96)	
Manganese	501		0	493	(105)	
Mercury	<0.1	[101]	D	<0.1		
Nickel	18.7		3	19.4	[89]	
Potassium	1660		7	1910	[81]	
Selenium	<0.5	(MSA)	D	<0.5	(MSA)	
Silver	<1.0		D	<1.0	[110]	
Sodium	512		4	539	[94]	
Thallium	<0.5	(99)	D	<0.5	[95]	
Vanadium	30.6		6	33.4	(93)	
Zinc	226		4	225	(108)	
Percent Dry Weight	Units: %	% Rec	RPD	%	% Rec	RPD
Percent Dry Weight (105C)	71.2		1	72.4		
Percent Dry Weight (60C)	70.0		2	70.4		

U.S. EPA Region III
Office of Analytical Services
and Quality Assurance
Annapolis, Maryland

Facility: ROBERT WOOLER
Program: SUPERFUND REMOVAL/REMEDIAL

Account #: 97 T 03N FAX A343SI00
Lab Request #: REQ97099

INORGANIC ANALYTICAL SAMPLE RESULTS

Sample Number:	97040104			97040105		
ANALYTES (continued)	SAMPLE			SAMPLE		
Total Cyanide	**Units: mg/Kg**	**% Rec**	**RPD**	**mg/Kg**	**% Rec**	**RPD**
Cyanide	< 1.0	(120)		< 1.0	[101]	D

U.S. EPA Region III
Office of Analytical Services
and Quality Assurance
Annapolis, Maryland

ORGANIC ANALYTICAL REPORT

ROBERT WOOLER

SUPERFUND REMOVAL/REMEDIAL

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Lab Request # REQ97099

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U.S. EPA Region III
Office of Analytical Services
and Quality Assurance
Annapolis, Maryland

Section: ORGANIC
Page: A1

Facility: ROBERT WOOLER
Program: SUPERFUND REMOVAL/REMEDIAL

Account #: 97 T 03N FAX A343SI00
Lab Request #: REQ97099

ORGANIC ANALYTICAL SAMPLE RESULTS

Sample Number:	97040101	97040102	97040103	97040104	97040105	97040106	97040107	97040108
ANALYTES	SAMPLE	SAMPLE	SAMPLE	SAMPLE	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Percent Dry Weight				%	%			
Percent Dry Weight (105C)				71.2	72.4			
NQL Factor:	1	1	1	1	1	1	1	1
Volatile Organics by Purge and Trap GC/MS Units:	ug/L	ug/L	ug/L	ug/Kg	ug/Kg	ug/L	ug/L	ug/L
Acetone				5 J		5.9		
Chloroform	0.4 J	2.7					2.4	
1,1-Dichloroethane	0.4 J							
1,1-Dichloroethene	10.8							
Cis-1,2-Dichloroethene	0.9 J	0.2 J		0.6 J				
Methylene Chloride	0.5 B	0.4 B	0.4 B	2 B	2 B	0.5 B	0.5 B	0.2 B
Tetrachloroethene	6.0	0.3 J						
1,1,1-Trichloroethane	7.4							
Trichloroethene	36.9	0.3 J			1 J	0.7 J		

Sample Number:	97040109	97040110	97040111	97040112
ANALYTES	SAMPLE	SAMPLE	SAMPLE	TRIP BLANK
NQL Factor:	1	1	1	1
Volatile Organics by Purge and Trap GC/MS Units:	ug/L	ug/L	ug/L	ug/L
Acetone				
Chloroform				
1,1-Dichloroethane				
1,1-Dichloroethene	0.4 J			
Cis-1,2-Dichloroethene	0.2 J			
Methylene Chloride	0.5 B	0.6 B	0.5 B	0.5 B
Tetrachloroethene	0.2 J			
1,1,1-Trichloroethane	0.3 J			
Trichloroethene	1.2			

U.S. EPA Region III
Office of Analytical Services
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Annapolis, Maryland

Section: ORGANIC
Page: D1

Facility: ROBERT WOOLER
Program: SUPERFUND REMOVAL/REMEDIAL

Account #: 97 T 03N FAX A343SI00
Lab Request #: REQ97099

LABORATORY REAGENT BLANK RESULTS

Method: Volatile Organics by Purge and Trap GC/MS

Run: OH975011 17 LRB

SURROGATES	NQL Factor	% Rec
Bromofluorobenzene	1	101
d4-1,2-Dichloroethane	1	102
d8-Toluene	1	98

ANALYTES	NQL Factor	ug/L
Methylene Chloride	1	0.5 J

Run: OH975011 18 LRB

SURROGATES	NQL Factor	% Rec
Bromofluorobenzene	1	101
d4-1,2-Dichloroethane	1	100
d8-Toluene	1	100

ANALYTES	NQL Factor	ug/Kg
Methylene Chloride	1	2 J

WESTON MANAGERS DESIGNERS/CONSULTANTS
5 Underwood Court, Delran, New Jersey 08075-1229
609-461-4003 • 215-238-0338 • Fax 609-461-4916

ORIGINAL (Red)

SITE ASSESSMENT TECHNICAL ASSISTANCE

EPA CONTRACT 68-S5-3002

1April 1997

Ms. Maggie Jennis (3HW33)
Site Assessment Manager
U.S. Environmental Protection Agency
841 Chestnut Building
Philadelphia, PA 19107

TDD No. 9701-151
DCN: C0000192

Subject: Amendments to Robert Wooler Sampling Plan

Dear Ms. Jennis:

Sampling at the Robert Wooler Site was conducted on 31 March 1997 as outlined in the Robert Wooler Site Sampling Plan (14 February 1997) with the following exceptions:

- Sample RWGW04 was not collected from the (b) (6) Home, as it was discovered that the home utilizes the public water supply. A sample was collected from the Manufacturers' Country Club well to replace this groundwater sample.

- Sample RWSW03 was collected at the mouth of the unnamed tributary as it emptied into Rapp Run. Rapp Run flows for approximately 1.3 miles before emptying into Sandy Run near Fort Washington.

The samples were shipped to the U.S. Environmental Protection Agency Laboratory in Annapolis on 31 March 1997, via Federal Express (Airbill No. 4269798260). As per your voice-mail message, dated 28 March 1997, I will await the raw data results from your office for incorporation into the PREscore, version 4.1, model.

If you have any comments concerning these amendments, please contact me at (b) (6)

Very Truly Yours,

ROY F. WESTON, INC.

Not Responsive Based on Revised Scope

Site Leader

ORIGINAL (Red)

cc: TDD File

A:sample plan amendments